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Karyotypes of Three Species of *Odontobutis* (Pisces: Odontobutidae) of Korea

Ho Bok Song [1] and Gab Man Park[2]

[1]Kangwon National University . [2]Kwandong University College of Medicine

Introduction

Cytogenetic studies of fishes have been important in aspects of phylogenetics and cytogenetic relationships among the species (Ozouf-Costaz and Foresti, 1992 Collares-Pereira *et al.*, 1998; Gozukara and Cavas, 2004). The chromosome numbers of animal species are, in general, uniform and constant, each species having a characteristic chromosome number. The chromosome numbers of about 50 species belonging to the Korean Cyprinidae family have been reported previously. And the chromosome numbers of these species range from 2n=44 to 2n=76 (Lee *et al.*, 1982; Lee *et al.*, 1983; Lee, 1984; Lee *et al.*, 1984; Kim *et al.*, 2004).

Materials & Methods

The specimens used in this study were collected in Korea during July 2004 and January 2005, and examined shortly after collection. Fifteen specimens of *Odontobutis platycephala* were collected in the Tonggok-ri, Nam-myeon, Chuncheon-si, Gangwon-do, twelve specimens of *O. interrupta* in Wolmyeong-ri, Yanggu-gun, Gangwon-do, and ten specimens of *O. obscurus* in Gucheon-ri, Dongbu-myeon, Geoje-si, Gyeongsangnam-do. Chromosome preparations were made from gill tissues by the air-dry method with minor modification (Collares-Pereira, 1992 Park, 2005).

Results

The chromosome numbers of three species of Korean *Odontobutis* are investigated : *Odontobutis platycephala, O. interrupta* and *O. obscurus. O. platycephala and O. interrupta* are known endemic species from Korea. In these species, the mitotic chromosomes from 22 groups with two chromosomes each indicated that it is a diploid. The karyotype of

Odontobutis platycephala, O. interrupta and *O. obscurus* is 2n=44 (all telocentric chromosomes)and NF=44. Chromosome sizes ranged from 3.3 to 6.1㎛, 2.7 to 5.9㎛and 3.2 to 6.0 ㎛ in length, respectively. This is the first report on the chromosomes of *O. interrupta, O. obscurus.* Karyotype studies prove of great value to systematics when used with more closely related species.

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